



QUALITY  
COMMUNICATION  
EQUIPMENT

## CODE CONVERTER

### TELEGRAPH TERMINAL EQUIPMENT

PRODUCT  
DATA  
**MODEL  
690A**



### MODEL 690A CODE CONVERTER

**PURPOSE:** The Model 690A Code Converter has been developed to serve as an ON-LINE interface between conventional start-stop and synchronous telegraph systems. The converter provides the capability of full duplex operation on a four wire basis; that is it will accept start-stop signals and process them to synchronous signals and simultaneously accept synchronous signals and process them to start-stop signals.

**APPLICATIONS:** Although originally developed for specific interfacing purposes, extensive operational experience has shown the Model 690A capable of broad application. For example; utilization of the converter with single channel start-stop telegraph circuits permits actual transmission of information by synchronous signals. The inherent advantages of synchronous operation (lower error rates, reduced idle channel hits, stable system clock, etc.) can provide a substantial increase in system performance.

**DESIGN FEATURES:** The unit is self contained with power and timing provided internally. Basic design features include: crystal controlled timing, regeneration of input signals, bit synchronism of the synchronous circuits, automatic or manual synchronous framing, solid-state input and output relays and a built-in loop power supply. The converter is designed to accomodate all conventional telegraph speeds by insertion of the appropriate plug-in crystal. In addition, an integral CHANNEL CONDITION METER is provided to permit continuous observation of the quality of the received synchronous signal.

PRICE F. O. B. FREDERICK, MD.

**\$2,300.00**

NEW INFORMATION

EFFECTIVE MAY 1965

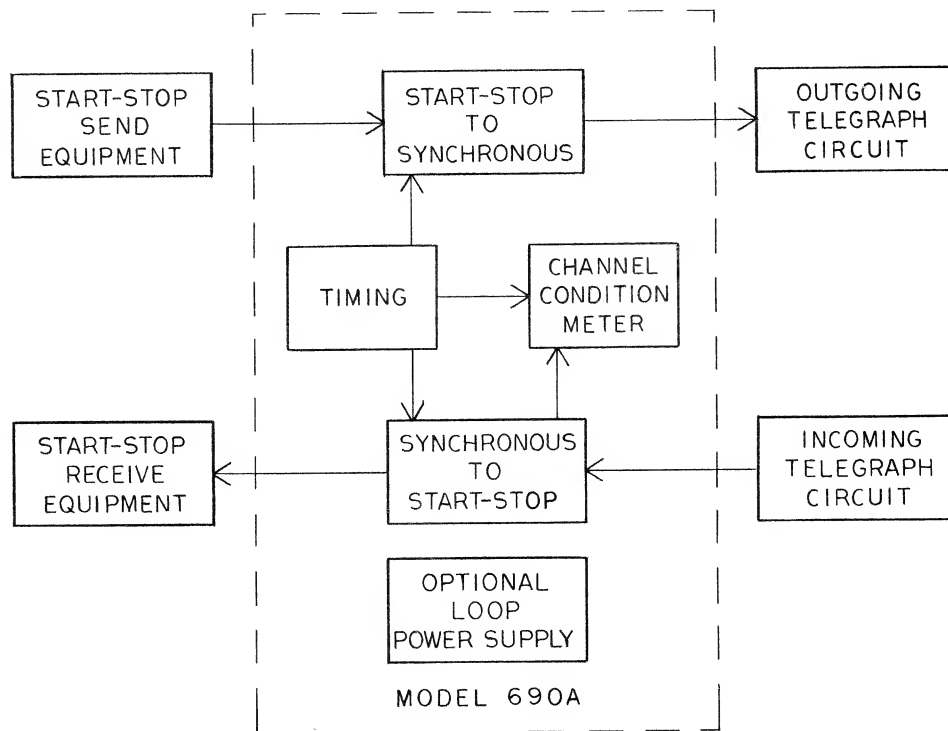
FREDERICK ELECTRONICS CORPORATION

P.O. BOX 502

FREDERICK, MARYLAND

# MODEL 690A

## CODE CONVERTER



### TYPICAL APPLICATION

**CONSTRUCTION:** The converter is all solid-state and packaged in modular form for ease of maintenance. The front panel is hinged, folding down to provide direct access to circuit cards and test points without removing the equipment from the rack or withdrawing it on slides. An extender cable and extender cards are supplied for POWER-ON maintenance and troubleshooting. The converter will mount in a standard 19 inch relay rack and measures 5½ inches high by 18 inches deep. The electronic circuitry is binary in form and designed to operate over a range of from 0 to 50 degrees, Centigrade.

### SPECIFICATIONS

INPUT/OUTPUT CODES:	5 Level, 7.42 Unit, Start-Stop or 6.0 Unit Synchronous
INPUT/OUTPUT SPEEDS:	Any standard telegraph speed by appropriate crystal choice
INPUT/OUTPUT CIRCUITS:	Solid-State Relay
INPUT/OUTPUT SIGNALS:	20 MA/60 Volts, Polar 20 MA/60 Volts, Neutral 60 MA/120 Volts, Neutral
INPUT DISTORTION:	Regeneration, without error, of input distortion up to 45%
POWER REQUIREMENTS:	117 vac, 50/60 cycles, 50 watts (assuming a nominal loop power supply load).
DIMENSIONS:	5¼" high, 19" wide, 18" deep
WEIGHT:	15 Lbs. Approx.

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